

# User's Manual

XPOS87A-5B-I3-01



## Copyrights

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## Liability Disclaimer

In no event will the manufacturer be liable for direct, indirect, special, incidental, or consequential damages arising out of the use or inability to use the product or documentation, even if advised of the possibility of such damages.

## Regulatory Information

### FCC Notices



This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the Federal Communications Commission (FCC) Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the

instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Increase the separation between the equipment and the receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio or television technician for help.

This device complies with Part 15 (A) of the FCC Rules. Operation is subject to the following two conditions:

- 1) this device may not cause harmful interference and
- 2) this device must accept any interference received, including interference that may cause undesired operation.

**NOTE: THE MANUFACTURER IS NOT RESPONSIBLE FOR ANY RADIO OR TV INTERFERENCE CAUSED BY UNAUTHORIZED MODIFICATIONS TO THIS DEVICE. SUCH MODIFICATIONS COULD VOID THE USER'S AUTHORITY TO OPERATE THE DEVICE.**

### CE Notice



This device complies with **EMC Directive 2004/108/EC** issued by the Commission of the

European Community.

## WEEE Notice



The **WEEE** mark applies only to countries within the European Union (EU) and Norway.

This appliance is labeled in accordance with

**European Directive 2002/96/EC** concerning **waste electrical and electronic equipment (WEEE)**. The

Directive determines the framework for the return and recycling of used appliances as applicable throughout the European Union. This label is applied to various products to indicate that the product is not to be thrown away, but rather reclaimed upon end of life per this Directive.

## RoHS Notice

# RoHS

This device is full compliance with EU Directive 2002/95/EC (the RoHS Directive) that restricts the use of the hazardous substances listed below in electrical and electronic equipment.

## Safety Statement for Lithium Battery

**CAUTION**  
**RISK OF EXPLOSION IF BATTERY IS REPLACED**  
**BY AN INCORRECT TYPE.**  
**DISPOSE OF USED BATTERIES ACCORDING**  
**TO THE INSTRUCTIONS**

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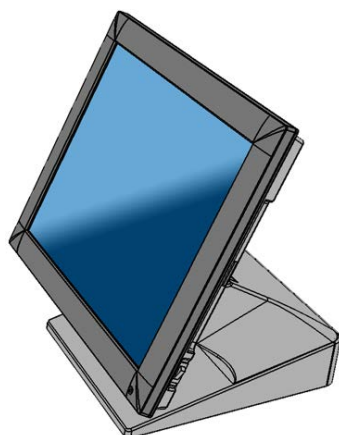
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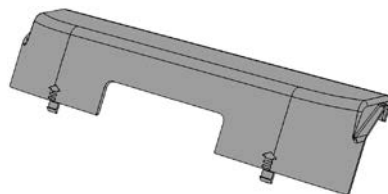
## Hardware Setup

### 1.1. Packing Contents

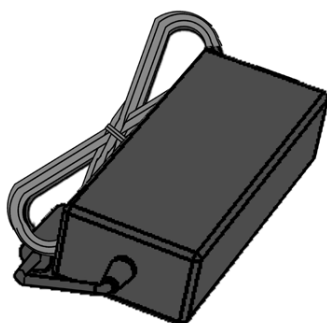
1. Device X 1



5. Cable Cover X 1



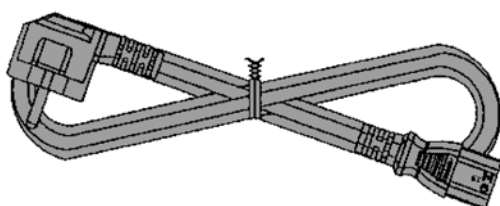
2. Power Adapter X 1



6. Drive and Utility DVD X 1



3. Power Cord X 1

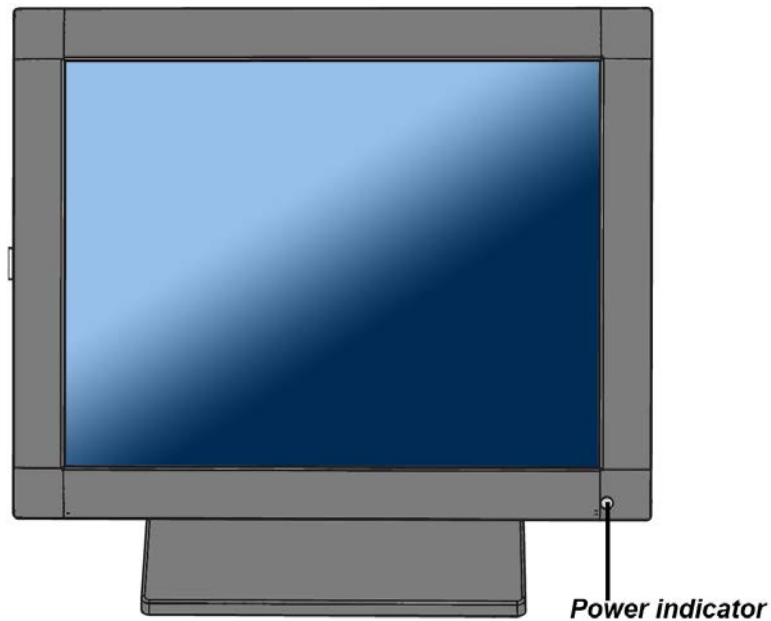


4. RJ50 to DB9 COM port adapter cable X 1



## 1.2. Quick Tour

### Front View and Side View

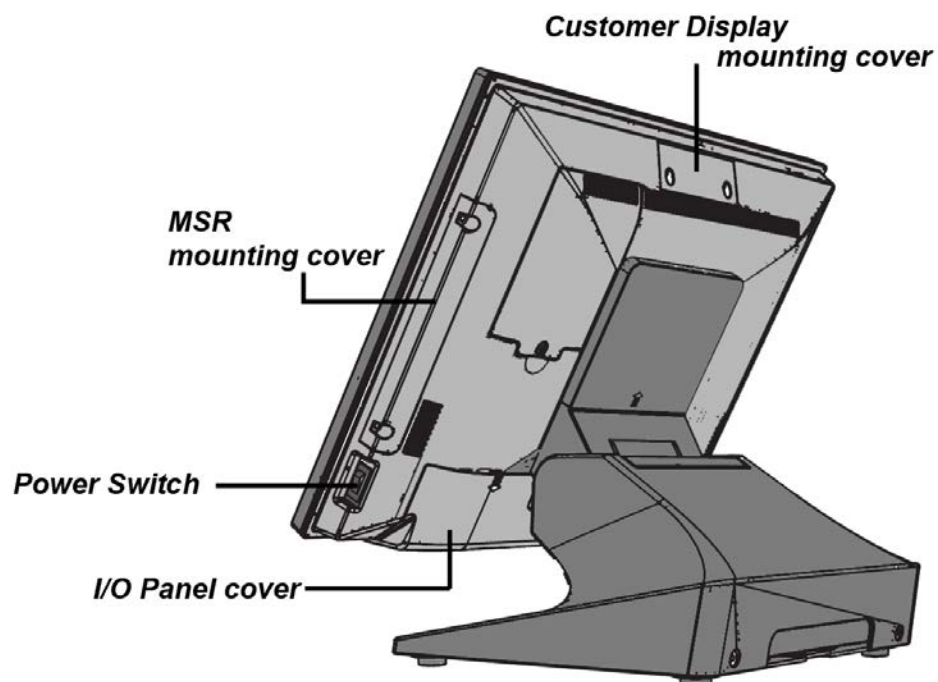


#### LED Indicator

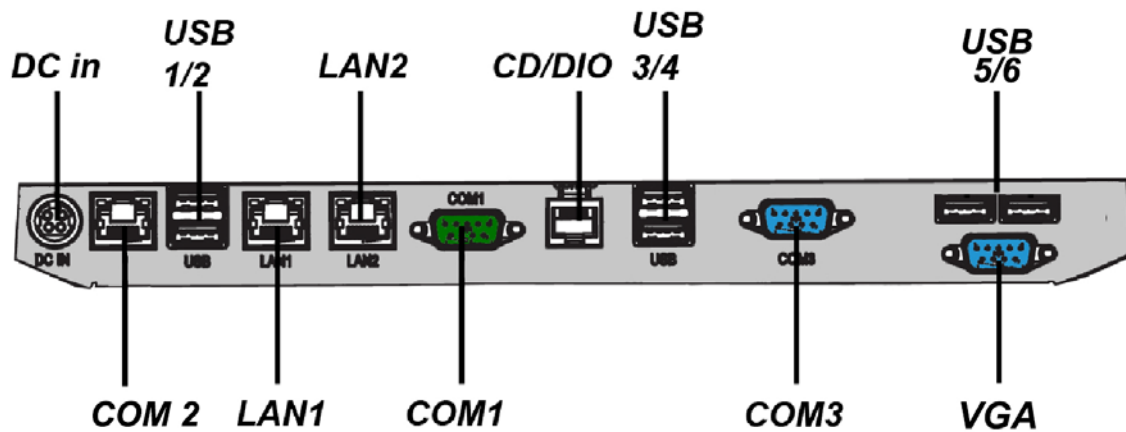
The **Power** indicator will:



1. Glow green when power is on.

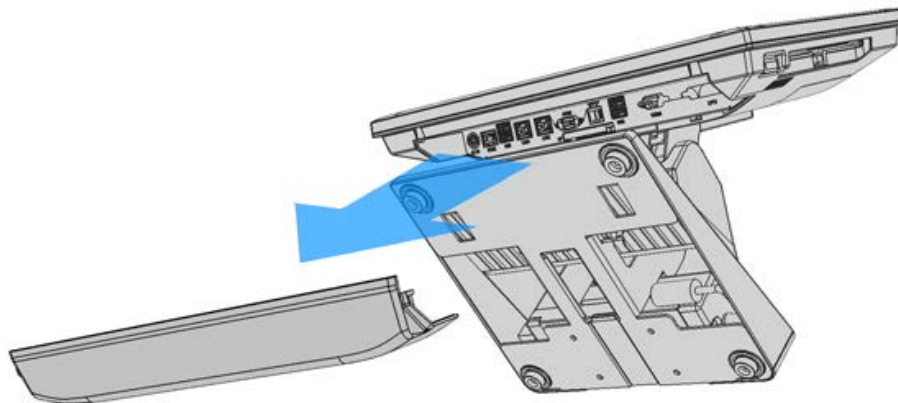


## Back Panel I/O



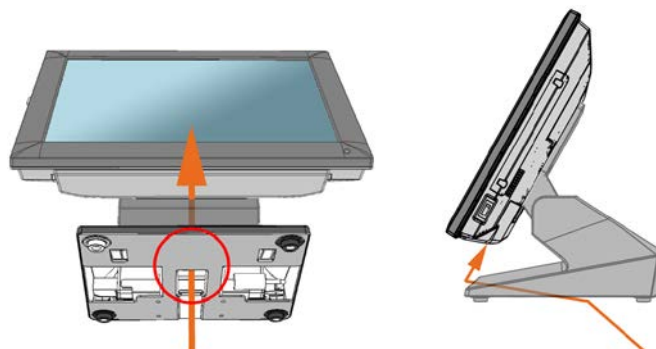
### 1.3. Basic Peripherals Installation

Remove the cable cover.



**WARNING:** Before the cable cover is removed, please make sure the power is off!

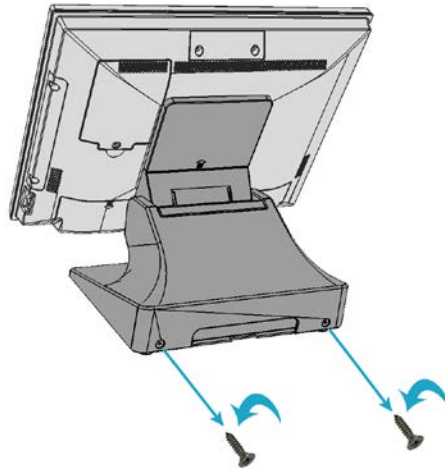
All cables and wires from peripherals to the I/O of the POS device are recommended to be connected in the direction as shown below.



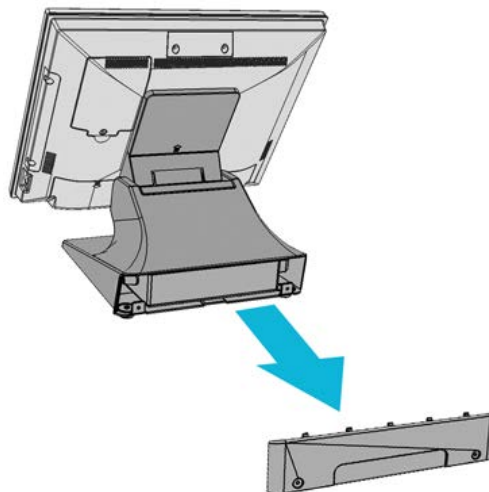


## Power Adapter

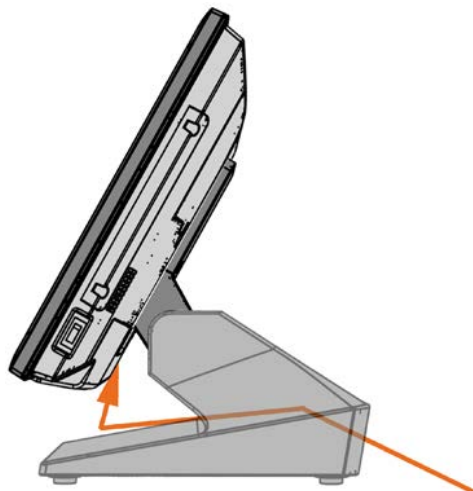
1. Remove the two screws from the device as shown below.



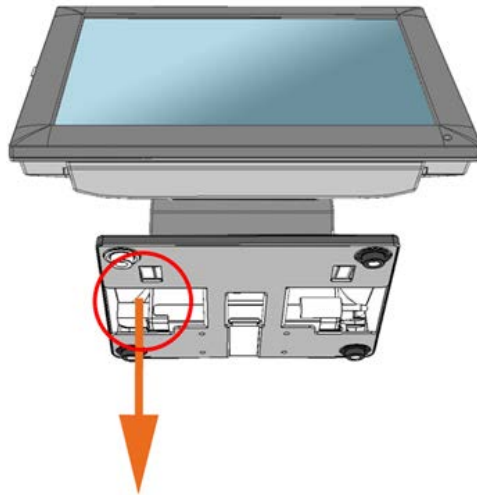
2. Remove the adapter tray.



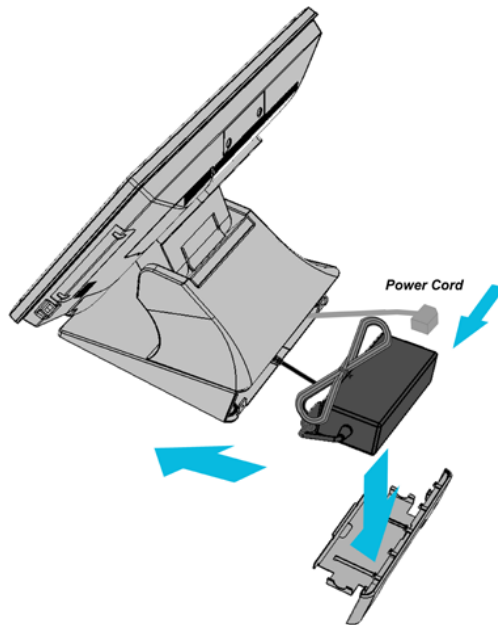
3. Feed the DC cable of the power adapter through the base as shown below.



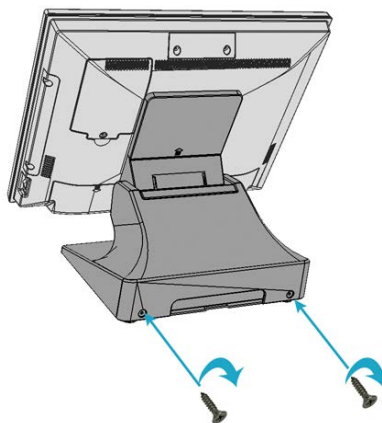
4. Feed the power cable through the base as shown below.



5. Assembly all components as shown below.



6. Tighten the two screws to fix the adapter tray.

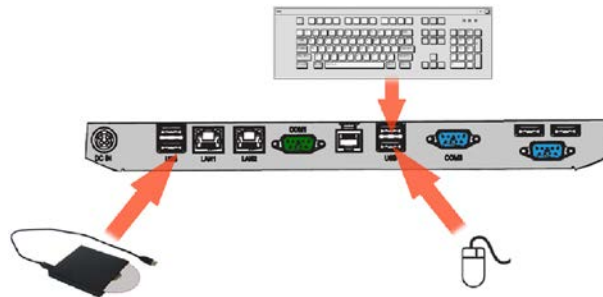


7. Connect the DC cable to the DC in jack.



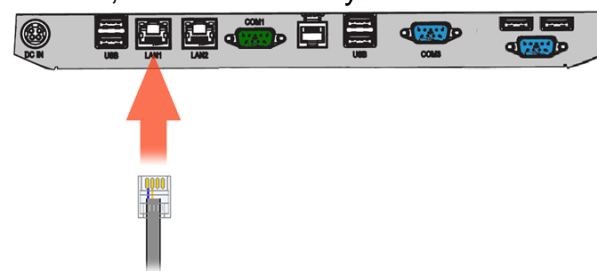
### USB Mouse, USB Keyboard and USB ODD

Connect your USB Mouse, USB Keyboard and USB ODD to **USB 1/2** or **USB 3/4** ports on the back panel of the device.



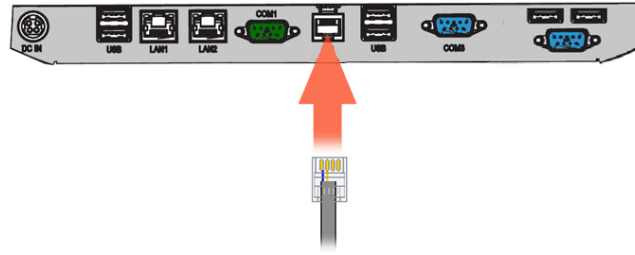
### LAN Cable

Connect one end of RJ-45 LAN cable to the **LAN 1** or **LAN 2** port on the back panel of the device, another end to your internet device.

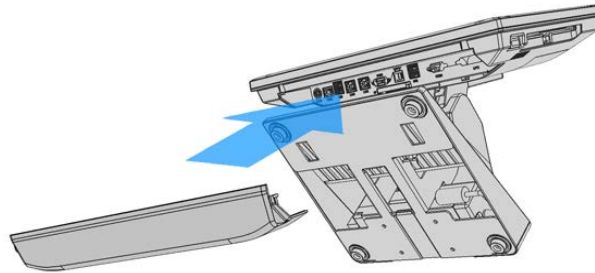


### Cash Drawer

Connect one end of RJ-12 cable to the **Cash Drawer** port on the back panel of the device, another end to your cash drawer.

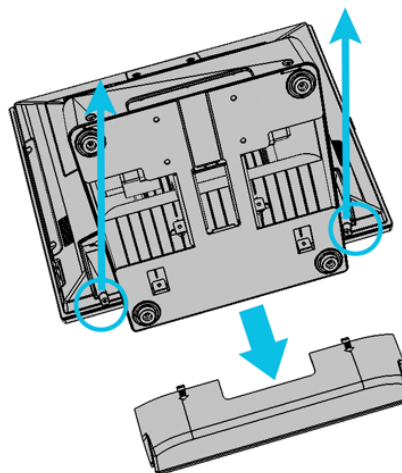


Install the IO panel cover onto the device.

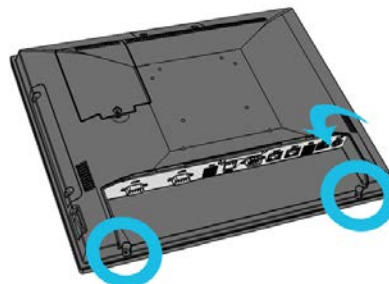


### WiFi Module

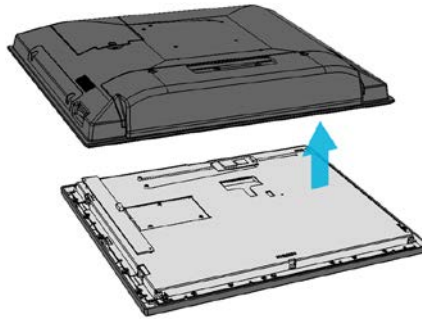
1. Remove the IO panel cover (if installed) from the device, remove the two screws, and then open the device.



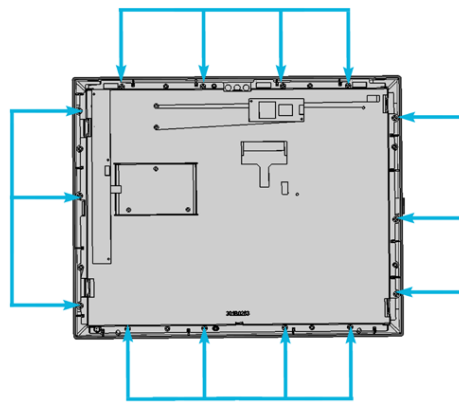
2. Un-tighten two screws.



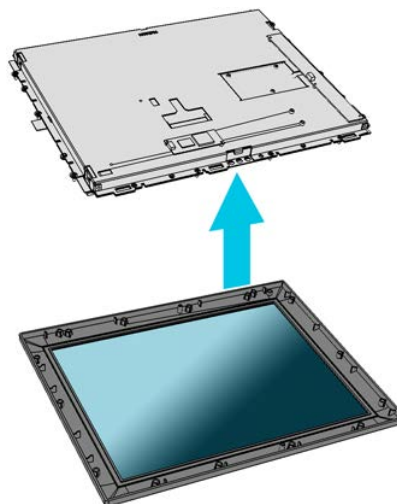
3. Open the back panel.



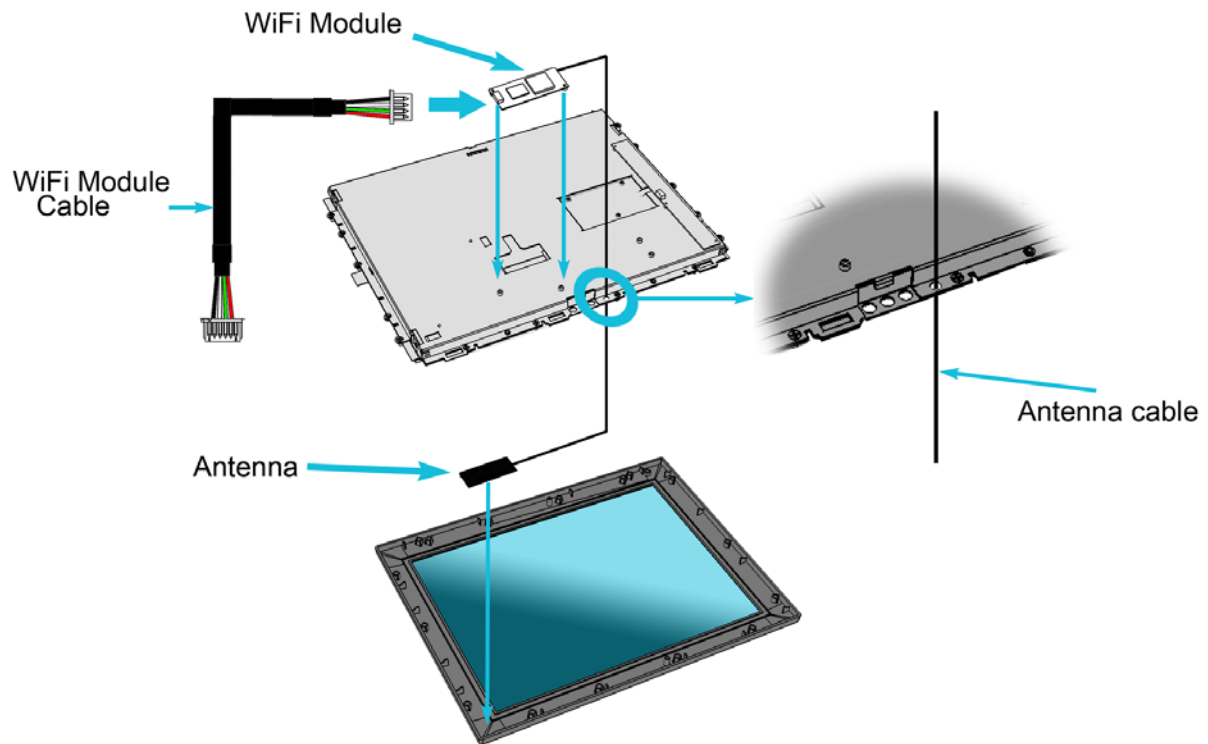
4. Remove all 14 screws as shown.



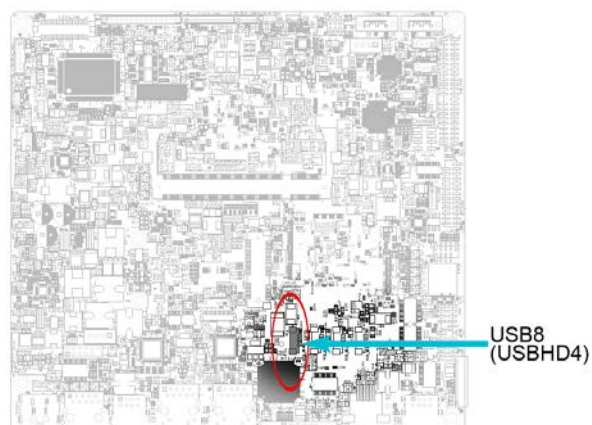
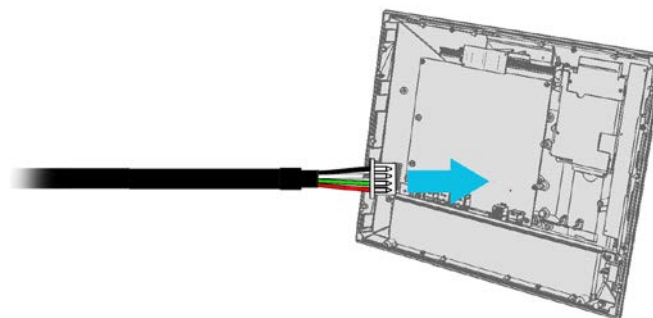
5. Remove the LCD and touch assembly.



6. Assemble the WiFi module, antenna and WiFi module cable as shown.



8. Connect the another end of the WiFi module cable to the 4 pin USB header (USB 8) on the main board. For the location of the USB8 on the main board, please refer to the figure below.

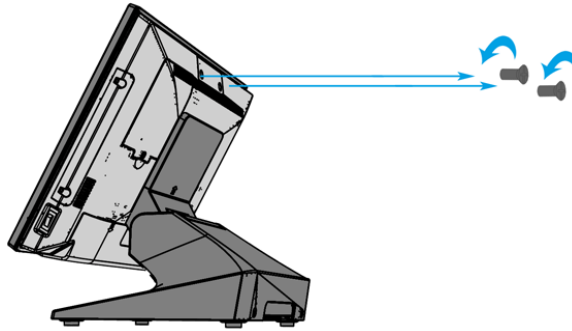


9. Reassemble the device.

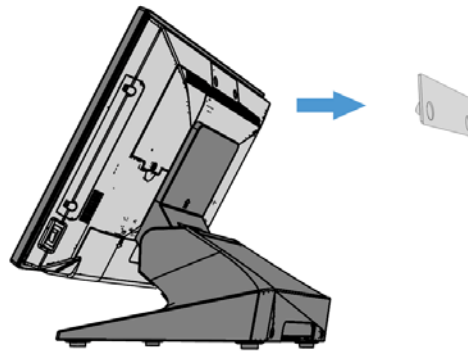
## Customer Display

### A. Hardware Installation

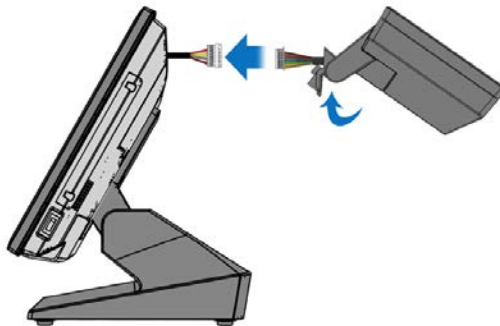
1. Remove the two screws fixing the customer display cover.



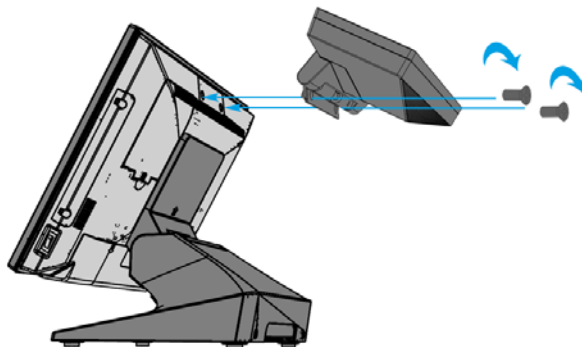
2. Remove the VFD mounting hole cove from the device and pull out the connector from the device.



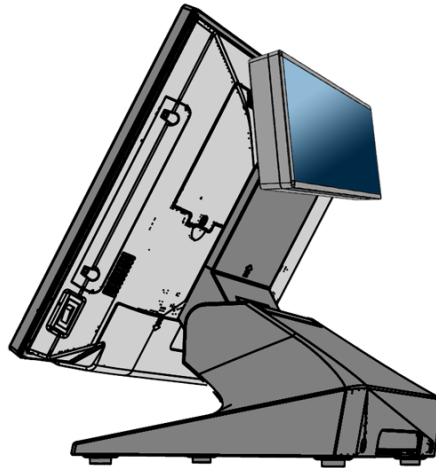
3. Adjust the hinge of the VFD, and then connect to the device as shown below.



4. Mount the VFD to the device and tighten the two M3 screws as shown below.



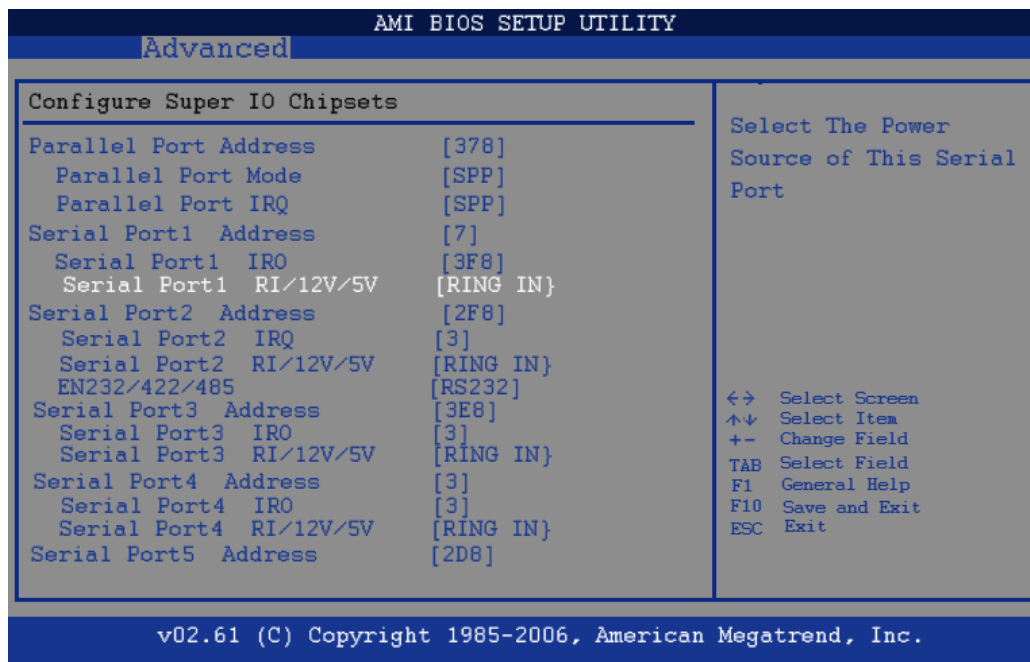
5. Finished.



### B. Power Supply Configuration

Power up the XPOS856 and hit the DEL key to enter the BIOS. When the BIOS screen appears use the TAB key to select Advanced. Use the arrow keys to select Super IO Configuration then type ENTER. The screen below will appear. Use the arrow keys to select **Serial Port 6** RI/12V depending on what port the customer display is connected to. Select 12V to enable power to the correct COM port. Type F10 to save the settings and exit the BIOS setup.

**Caution:** Never enable the 12 V without the customer display attached and be sure to disable the 12 V before removing the customer display.

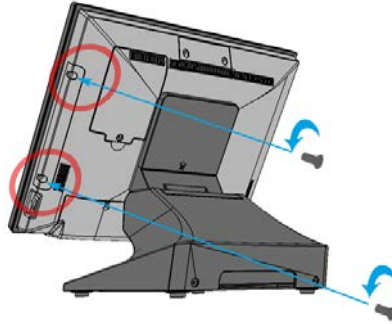


**NOTE:** The figure above is for reference only; it is possible that the actual screen on your device does not agree with it.

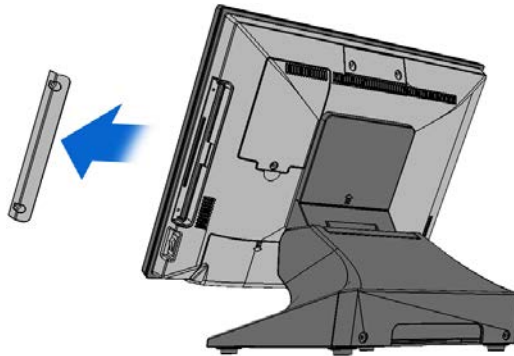


## MSR

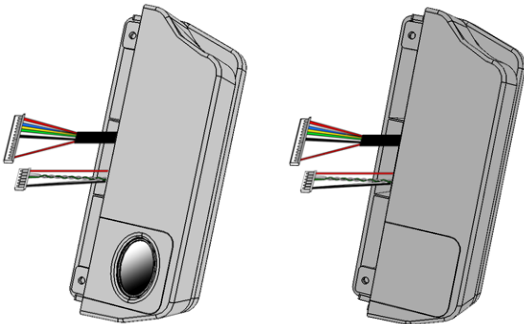
1. Remove the two screws fixing the MSR cover.



Remove the MSR cover from the device.



2. For MSR with fingerprint sensor or MSR with RFID sensor, connect the two connectors of the MSR assembly to the device.

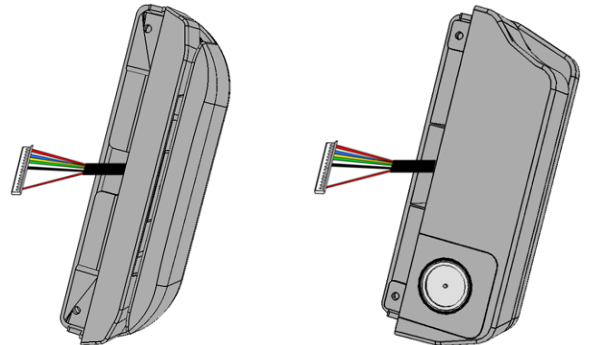


MSR with fingerprint sensor

MSR with

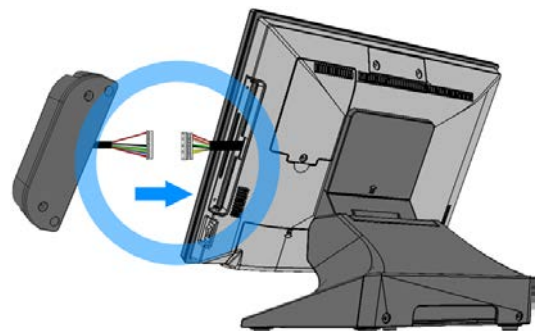
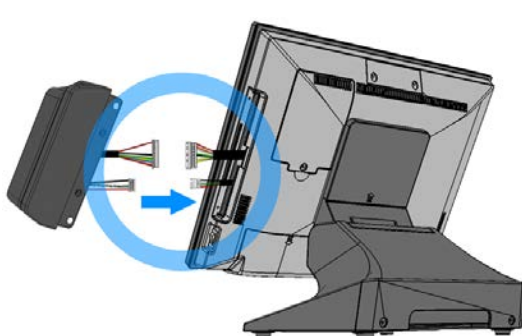
RFID sensor

2. For MSR or MSR with iButton, connect the connector of the MSR assembly to the device.

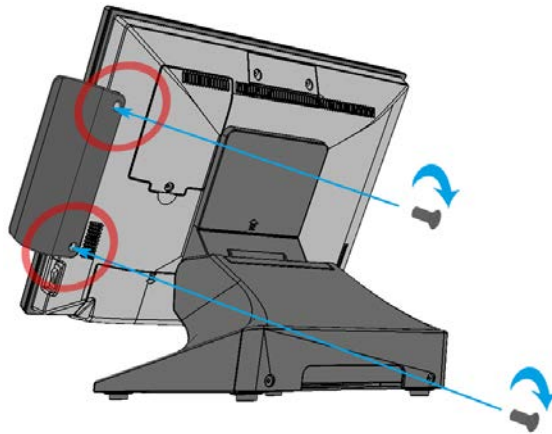


MSR

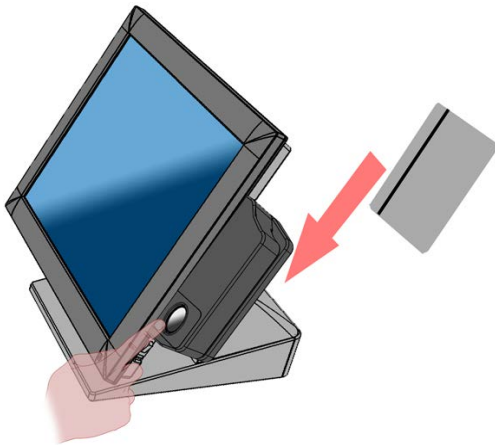
MSR with iButton



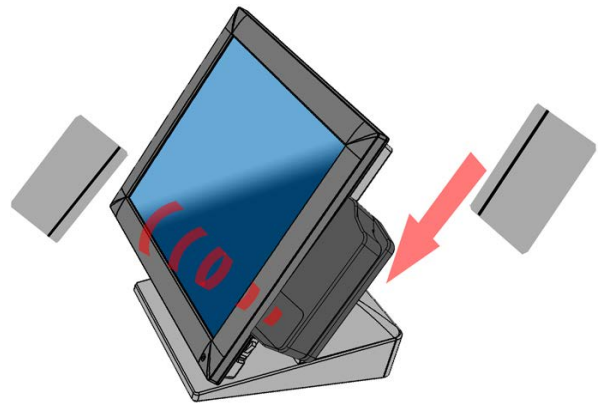
3. Tighten the two M3 screws to fix the MSR assembly as shown below.



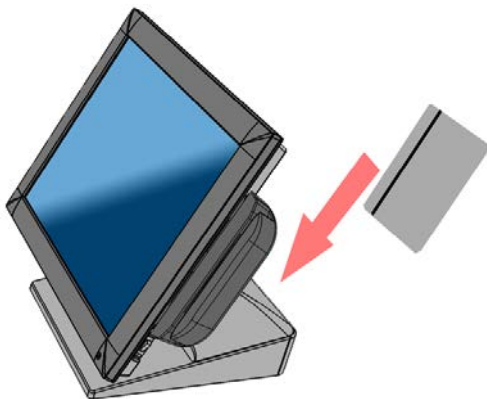
4. Finished.



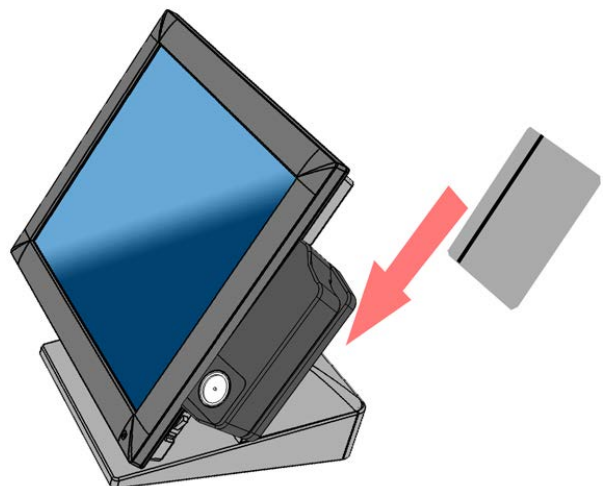
**MSR with fingerprint sensor**



**MSR with RFID sensor**

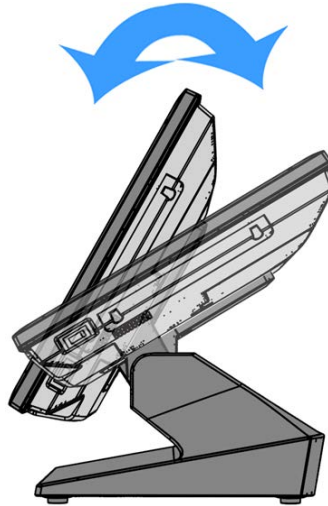


**MSR**



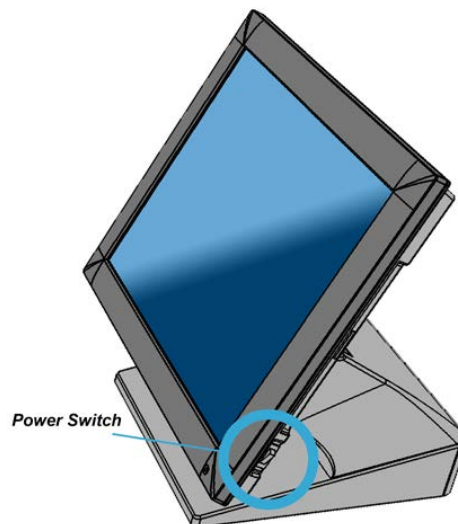
**MSR with iButton**

## 1.4. Adjust Angle



## 1.6. Turn on the device

1. Make sure all peripherals are connected properly.
2. Press and hold the power switch until the power indicator on the front panel glows green.



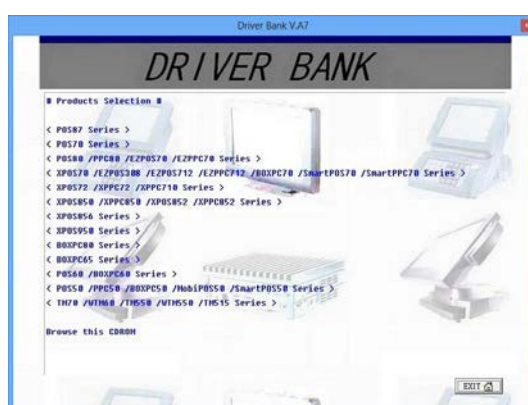
## Basic Driver Installation

## 2.1. Before the installation

1. Connect an external USB CDROM to the USB power and insert the driver CD and turn on the device. The program autoruns and displays the **DRIVER BANK** screen.
2. Follow the on-screen instructions.

## 2.2. Chipset Software Installation

1. On the main screen, click **"XPOS856 Series"**.



- 2. Click Intel Chipset Driver.**



3. Click **Next**.



4. Read the License Agreement carefully and click **Yes**.



5. Click **Next**.





6. Click **Next**.

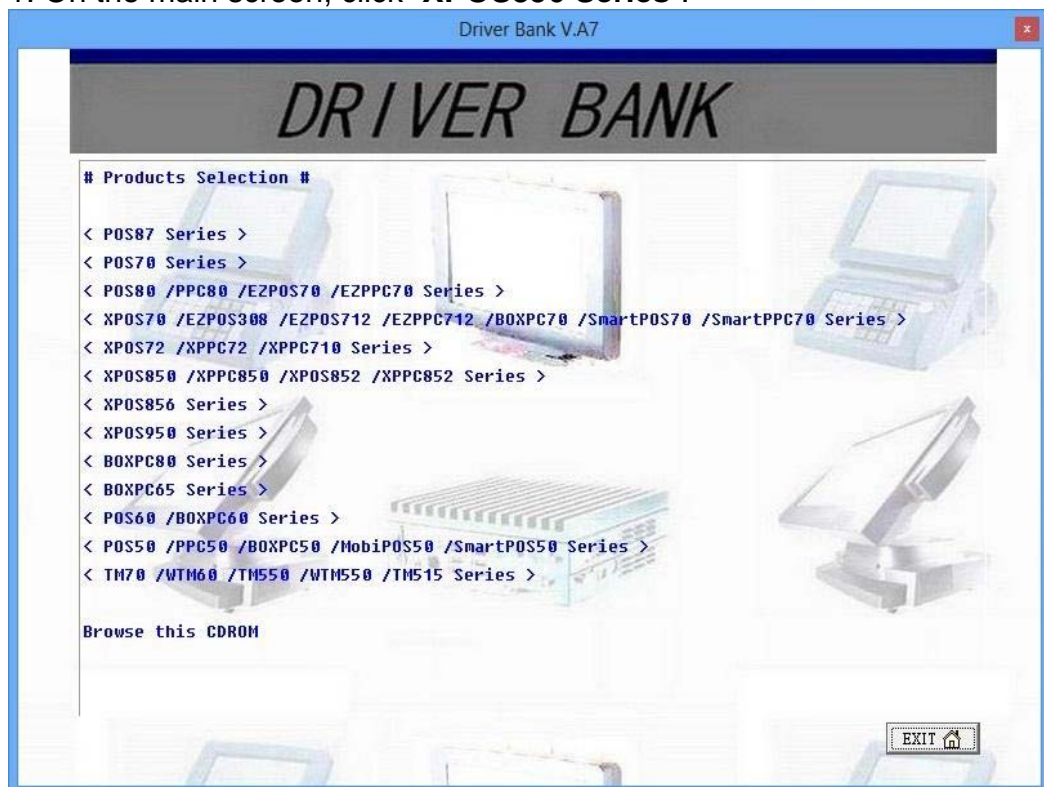


6. Click **Finish**.



## 2.3. Intel Management Engine Components install

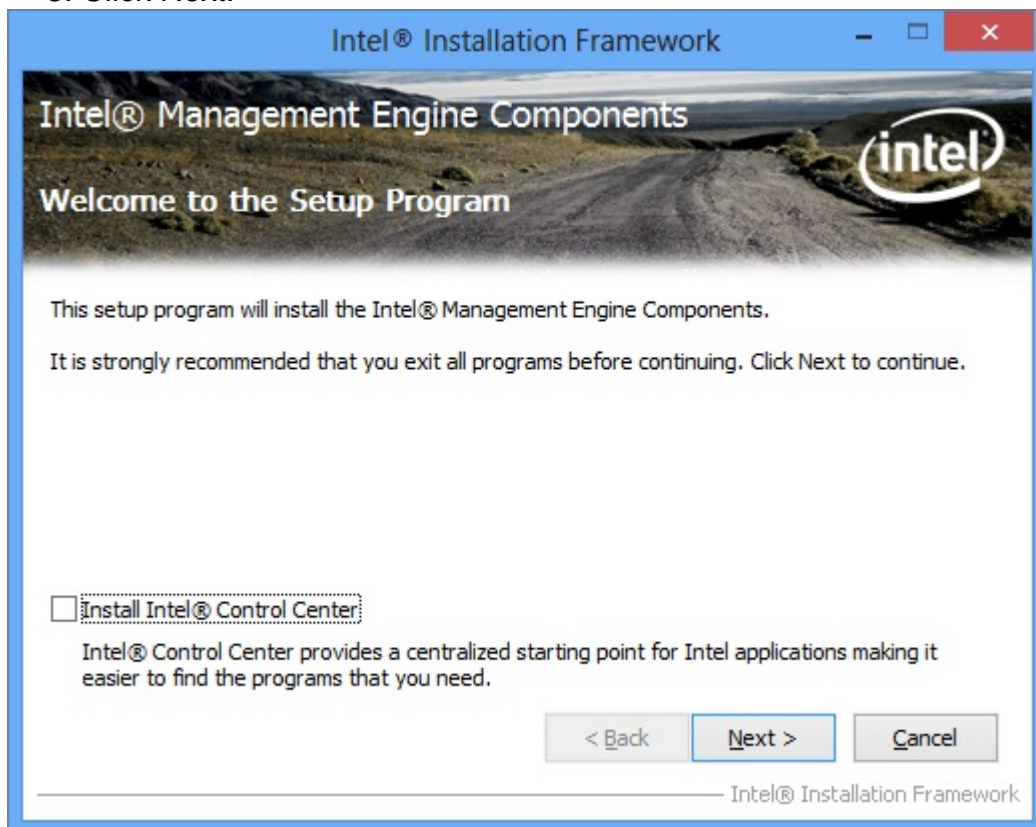
1. On the main screen, click “**XPOS856 Series**”.



## 2. Click Intel Management Engine Driver



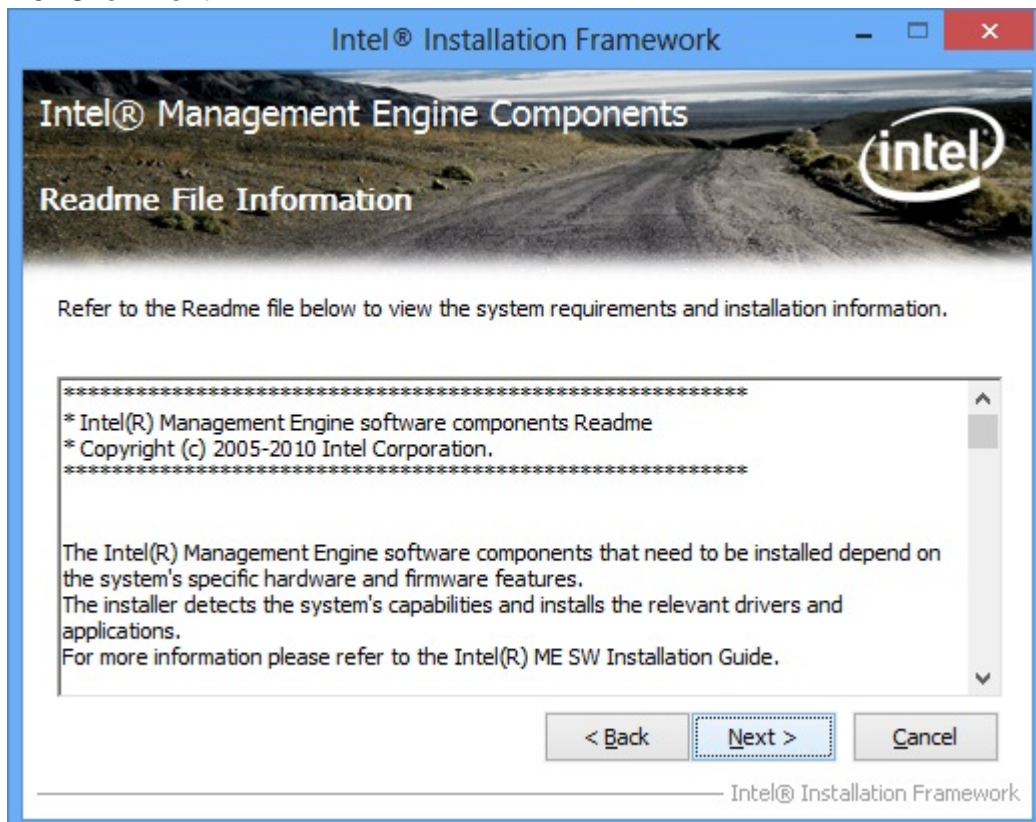
## 3. Click Next.



4. Click Yes.

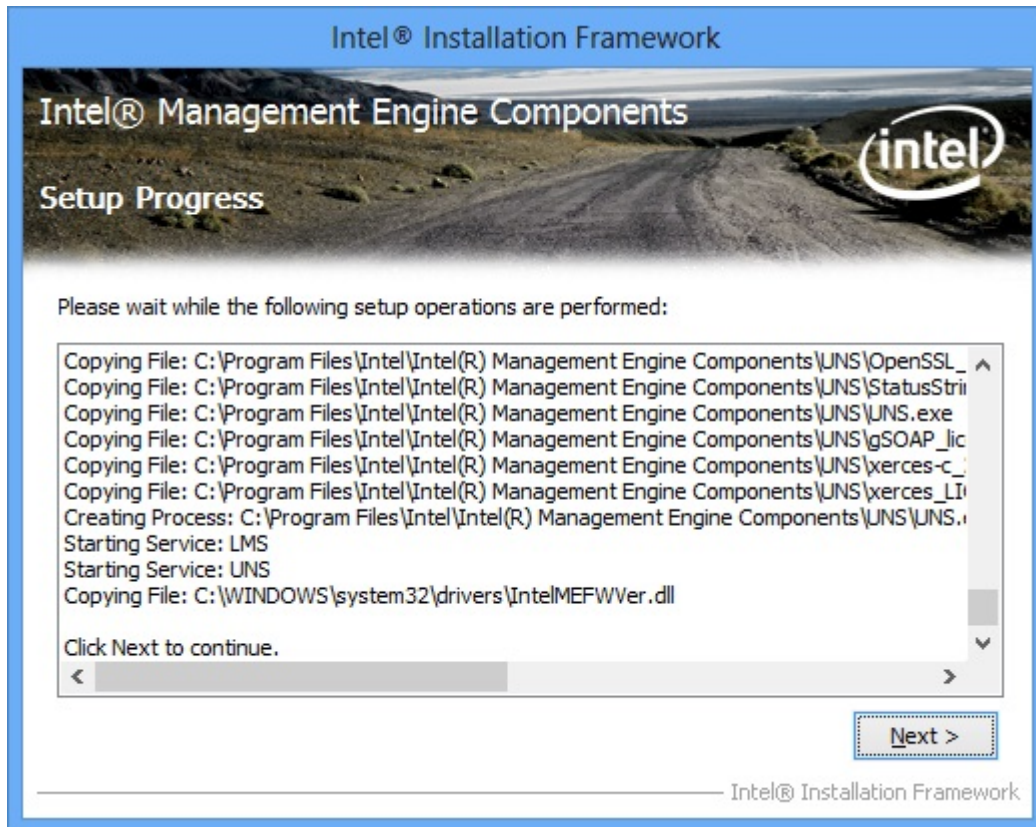


5. Click Next.

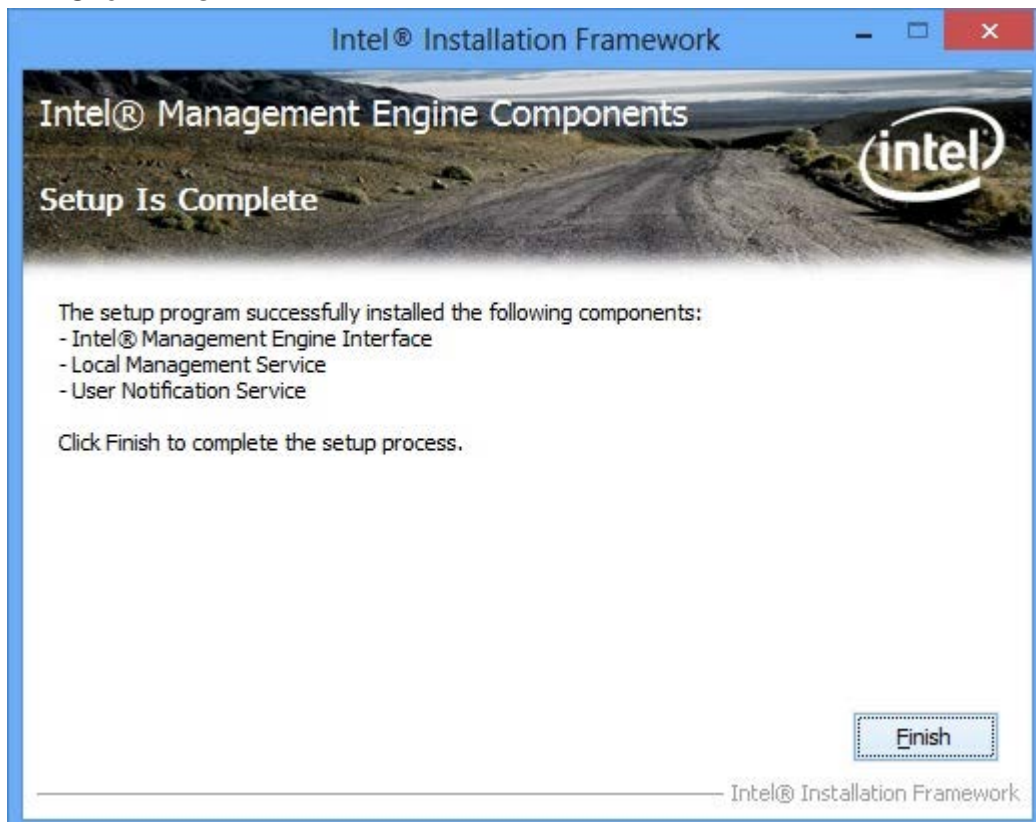




6. Click Next.

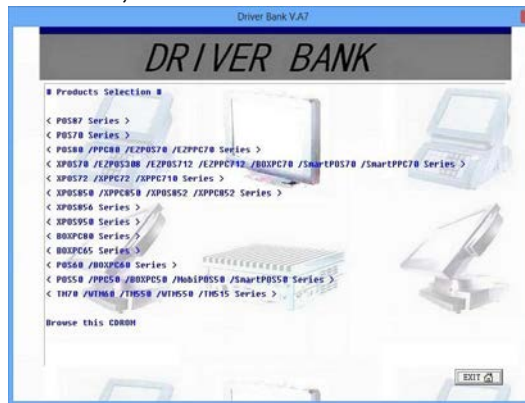


7. Click Finish.



## 2.4. VGA Driver Installation

1. On the main screen, click “XPOS 856/XPPC856 Series”.



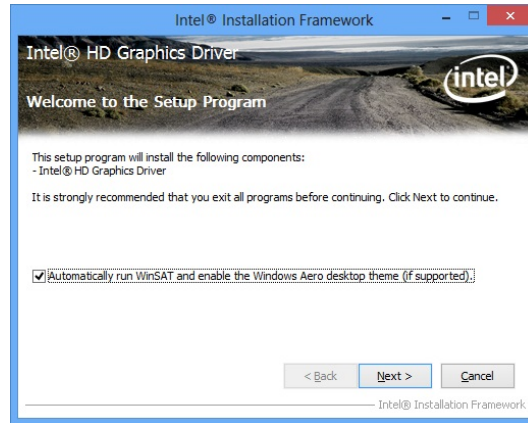
2. Click **VGA Driver**.



3. Click **VGA Driver For Windows XP /Windows 7/ Windows 8 32bit/64bit**.



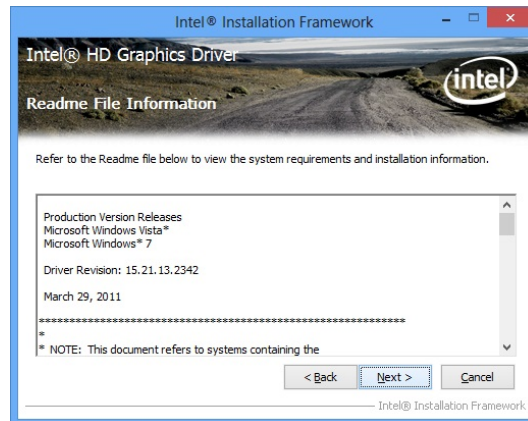
4. Click **Next**.



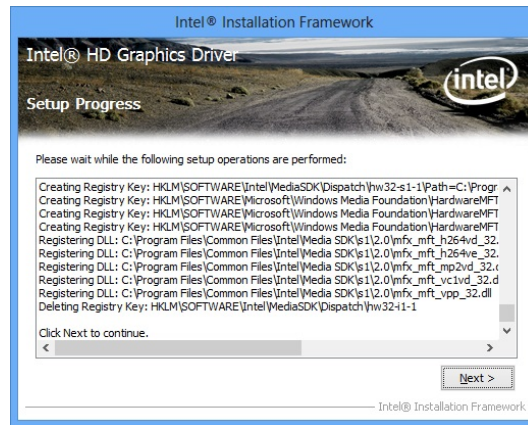
5. Read the License Agreement carefully and click **Yes**.



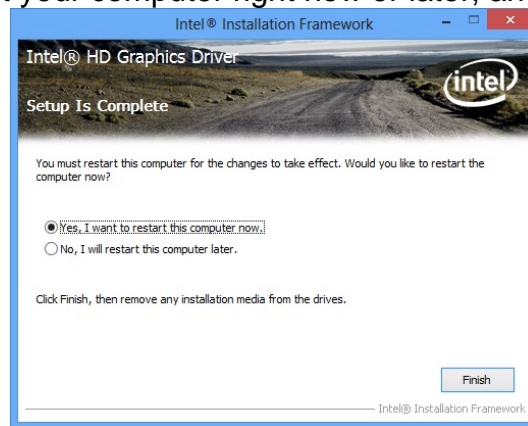
6. Click **Next**.



7. Click **Next**.



8. Select restart your computer right now or later, and then lick **Finish**.



## 2.5. Touch Screen Driver and Software Utility installation

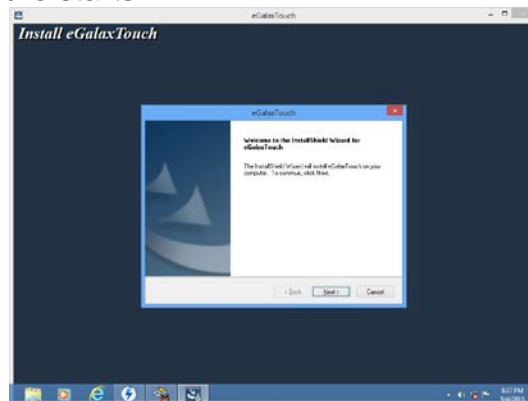
1. On the main screen, click “XPOS 856/XPPC856 Series”.



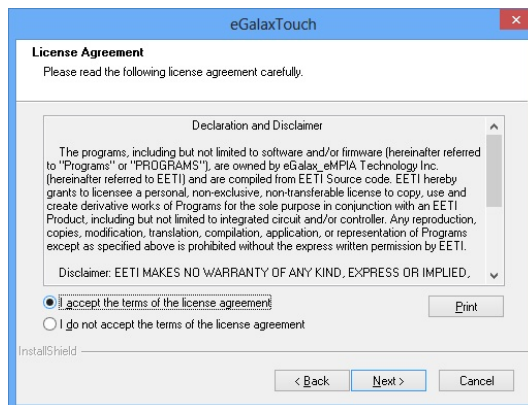
2. Click **Touch Panel Driver Windows XP /Windows 7/Windows 8 32bit/64bit**



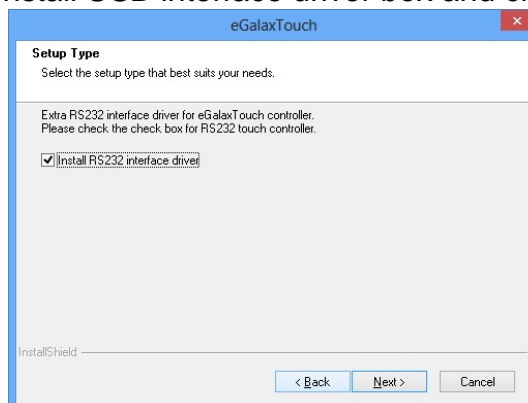
3. The procedure starts.



4. Click **Next**.

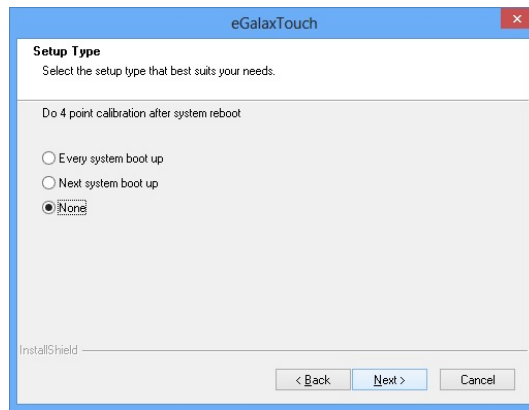


5. Check the Install USB interface driver box and click **Next**.





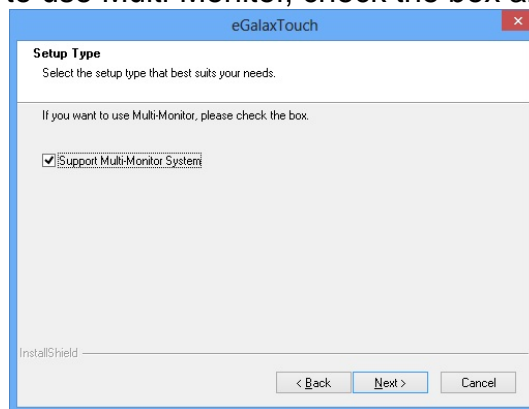
6. Select an item according to your needs, and then click **Next**.



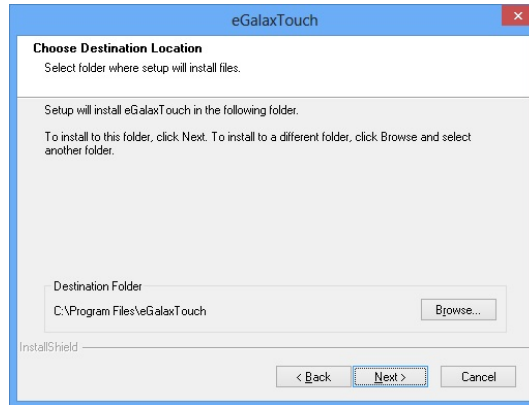
7. Click **OK**.



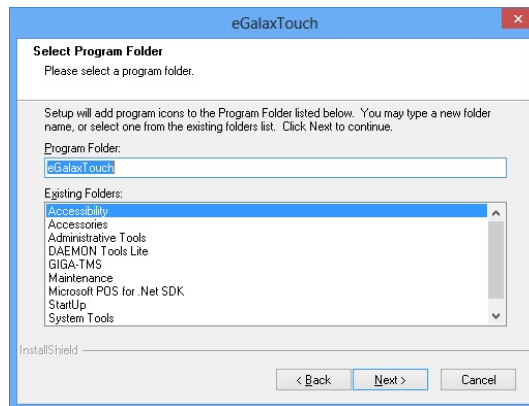
8. If you want to use Multi-Monitor, check the box and click **Next**.



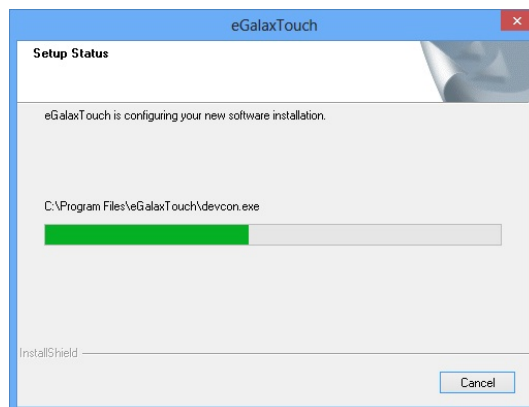
9. Click **Next**.



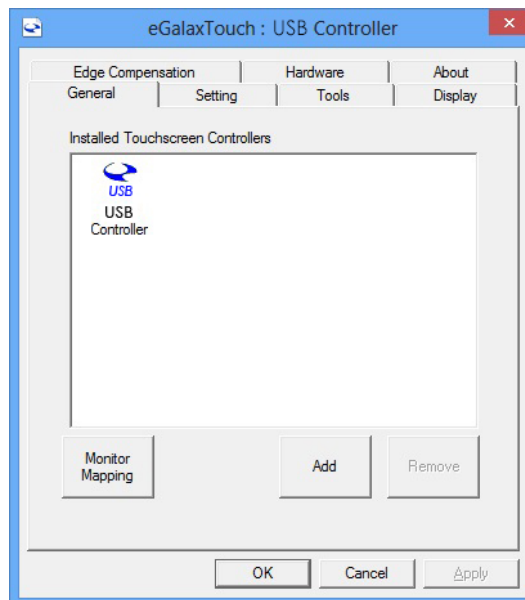
10. Click **Next**.



11. The driver starts to install.



12. Click **OK**.



## 2.6. LAN Driver Installation

1. On the main screen, click **"XPOS 856/XPPC856 Series"**.

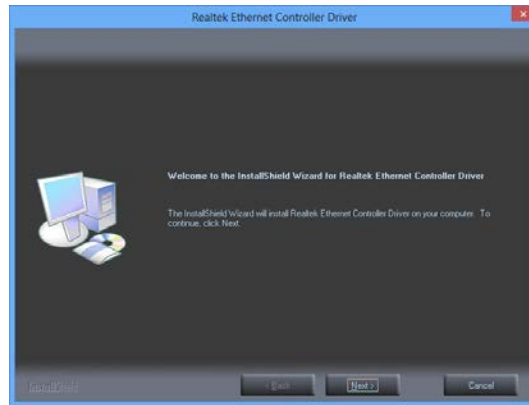


2. Click **Realtek Lan Windows XP/Windows 7/Windows 8 Driver 32bit/64bit**.

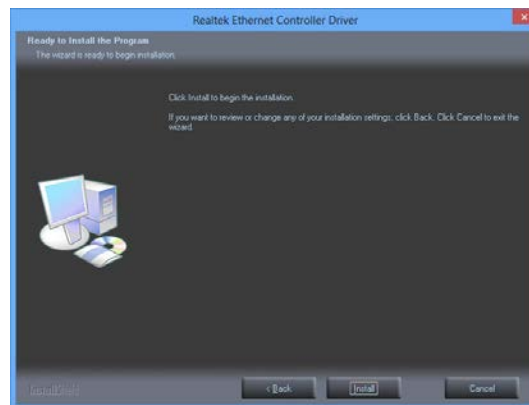




2. The procedure starts.



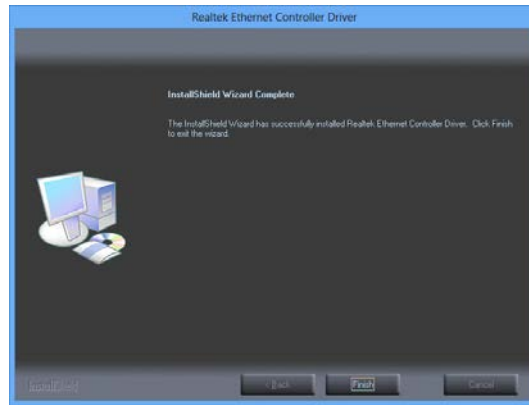
3. Click Next



4. The driver starts install

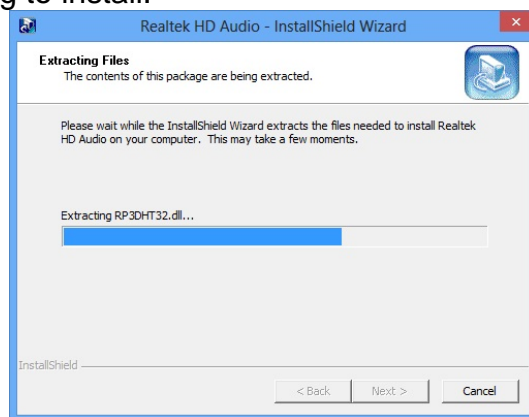


#### 4. Click Finish



## 2.7. Audio Driver Installation

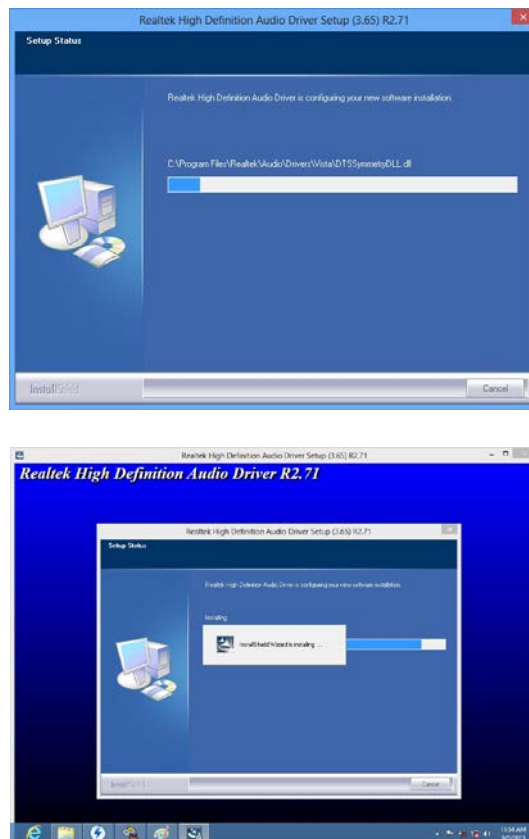
### 1. The driver is preparing to install.



### 2. Click **Next**.



### 3. Driver installation in progress



### 4. Select restart your computer right now or later, and then lick **Finish**.



## Touchscreen Control Panel Quick Guide

### 3.1. Launch TouchKit Utility


There are two alternatives to launch **TouchKit**.

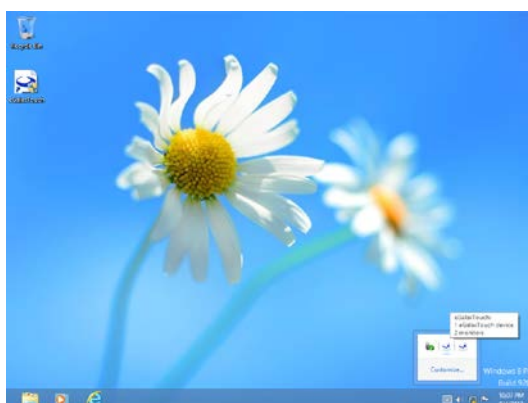
#### Option 1:

Under Microsoft Windows 8, click “**eGalaxy Touch**” icon on desktop.



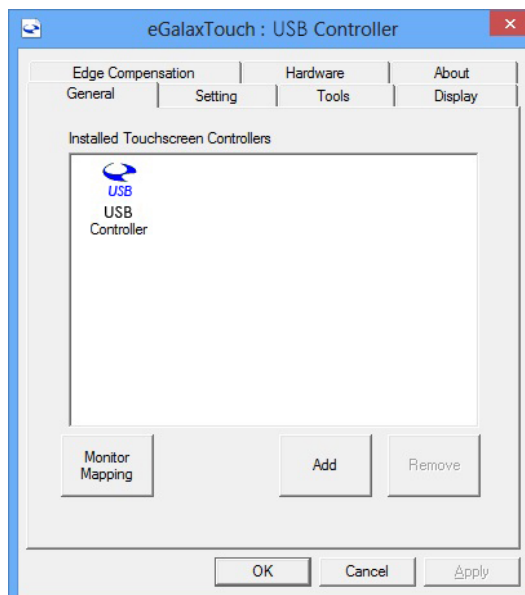
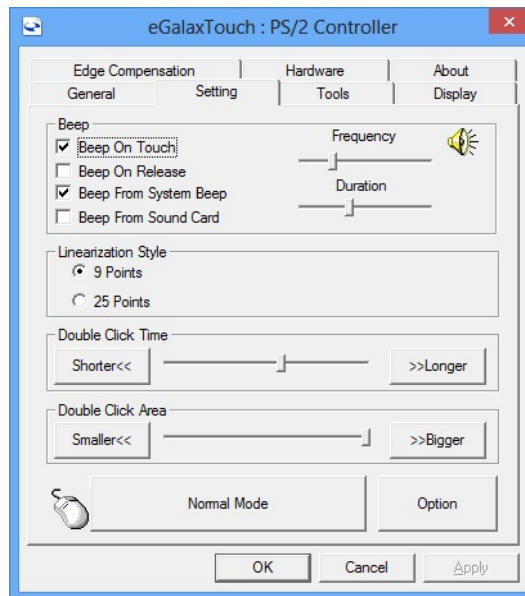
#### Option 2:

Click  eGalaxy Touch icon on the task bar to launch **TouchKit** utility.



### 3.2. General

The **General** tab in **Touchkit utility** shows all of **TouchKit** touchscreen controllers installed as below, including RS232, USB and interfaces.



## Add

The function button is used for serial RS232 controllers only. Press this button to search the **TouchKit** serial controllers connected with the COM ports of the device. Whenever it finds a new **TouchKit** serial controller, a new serial controller icon object will be shown in the controller list window automatically.

USB **TouchKit** device supports plug and play, the icon object for USB controller will be shown in the controller list window automatically when the USB controller is connected with the USB port of the device. And,

the icon object for the USB controller will disappear automatically as soon as the device was removed from the USB port of the device.

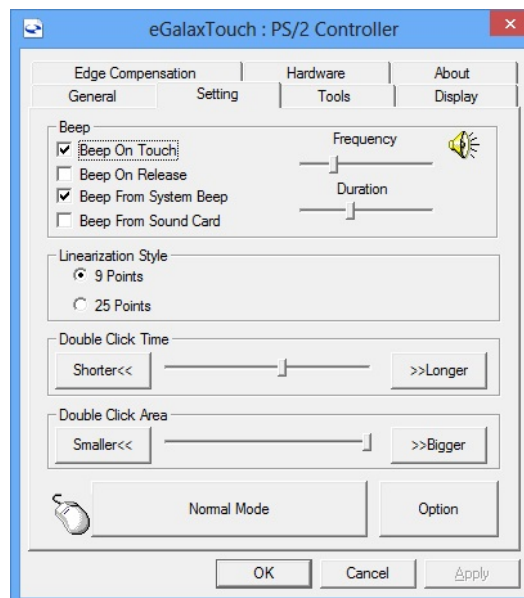
## Remove

This function button is used for serial RS232 controllers only. This button will be grayed and disabled automatically when the selected controller in the controller list window is not RS232 type. Press to remove and uninstall the selected serial RS232 controller from the device. Then, this serial RS232 icon object in controller list window disappears automatically.

USB TouchKit device supports plug and play, the icon object for USB controller will be shown in the controller list window automatically when the USB controller is connected with the USB port of the device. And, the icon object for the USB controller will disappear automatically as soon as the device was removed from the system USB port.

## 3.3. Settings

There are function buttons and check boxes in the **Settings** tab.



## Beep

### Beep On Touch

Check this check box to enable driver to generate a beep sound when touch screen state is switched from untouched to touched state.

### Beep On Release

Check this check box to enable driver to generate a beep sound when touch screen state is switched from touched state to untouched state.

### Frequency

Drag the slider to adjust this frequency to control the beep sound frequency generated by the driver.

### Duration

Drag the slider to adjust this duration to control the beep sound duration.

## Linearization Style

**TouchKit** utility provides you with both 9 points and 25 points calibration for linearization. You can select the suitable linearization type.

## Double Click Time

**Double Click Time** is used to set double click time. Change this value will affects the double click behavior for all of the mouse devices connected to the device. Two continuous clicks at the same area within this specified time period will be recognized as a double click event.

## Double Click Area

**Double click area** is used to set the double click area. Change this value will affects the double click behavior for all of the mouse devices connected to the device. Two continuous clicks with this specified area

in the specified double click time will be recognized as a double click event.

## Mouse Emulation Mode

Change the emulation mode by pressing on this button.

### Normal Mode

**Normal** mode behaves mouse button down and mouse move. You can select this mode to select object, and dragging the object.

### Click On Touch

With this **Click On Touch** mode, the driver emulates a mouse click event when the touchscreen state was switched from un-touched state to touched state. Then, the driver always generate mouse move event and is tracking the touch position until the touchscreen state switched to un-touch state.

### Click On Release

With this **Click On Release** mode, the driver emulates a mouse click event when the touchscreen state was switched from touched state to un-touched state.

### Click On Touch without moving cursor

With this mode, the driver behaves similar as **Click On Touch** mode. The cursor does not move to the touch position except the first touch point.

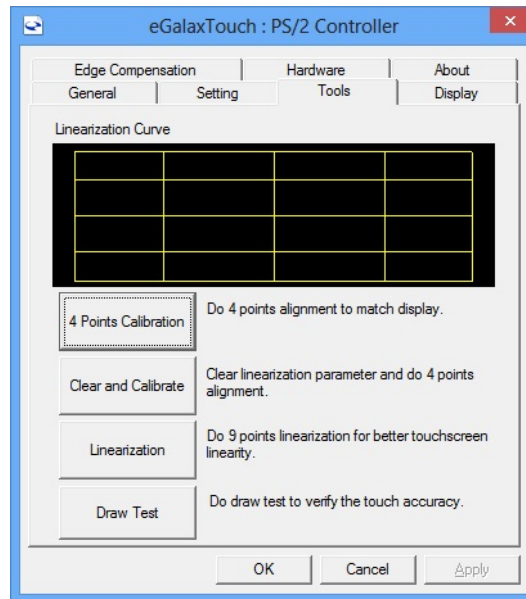
### Click On Release without moving cursor

With this mode, the driver behaves similar as **Click On Release** mode. The cursor does not move to the touch position except the lift-off point.



### 3.4. Tools

There are function buttons and check boxes in the **Tools** tab.



#### 4 Points Calibration, Clear and Calibration, and Linearization button

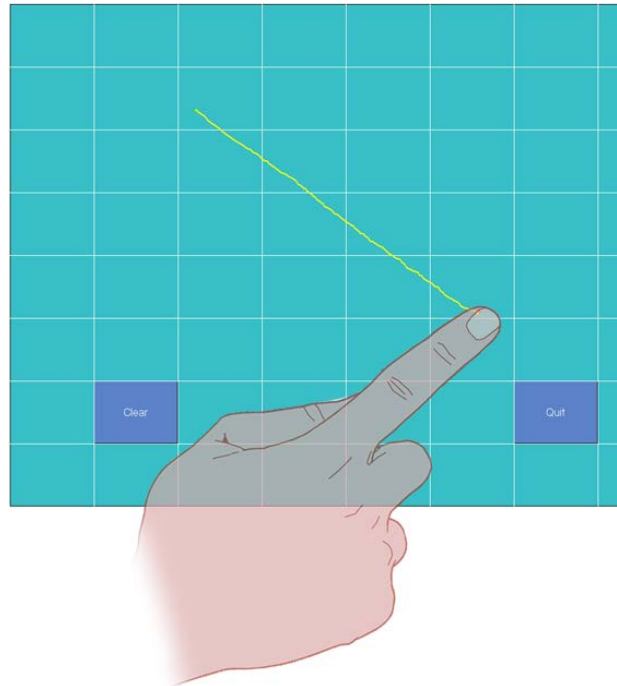
Click the one of three these buttons and follow the instruction on the screen to do the screen calibration.



#### Draw Test

After clicking this button, you can do the drawing test by drawing any

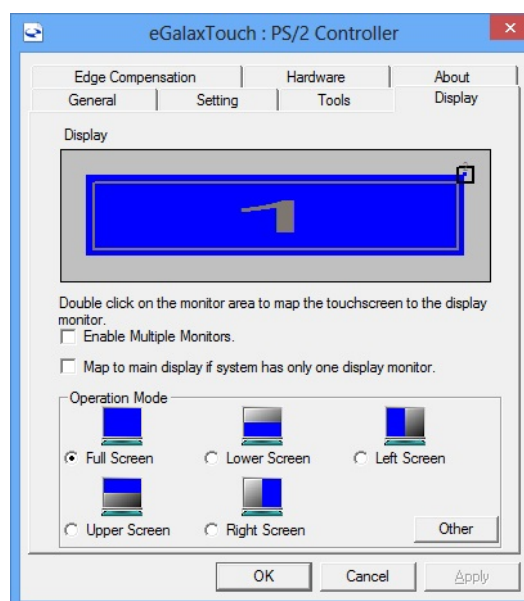
path on the screen as shown below.



You can remove all paths you drew by clicking **Clear**, or exit this screen by clicking **Quit**.

### 3.5. Display

**TouchKit** driver utility supports multiple monitor and display system. To work with multiple monitor system, you need to do proper configuration to map the touchscreen working area to the correct system display area. You can do such configuration with this property page shown as below,



Please follow below instructions to do the configuration:

### **Enable multiple monitor**

Check this check box to enable multiple monitor support and uncheck it to disable multiple monitor support. When this function is disabled, the touchscreen will be mapped to the primary monitor automatically.

When this function is enabled, user can double click on the monitor area in the monitor geometry window to assign the monitor area where the touchscreen will be mapped. In other word, the touchscreen will work with the selected monitor. Then, the selected monitor area rectangle line will be changed to be white and the other monitor rectangles line will be grey.

### **Map to main monitor when the system has only one monitor**

When the multiple monitor function was enabled, and the system has only one monitor.

Driver allows user to generate the mouse event for the primary monitor or not when the touchscreen which were not mapped to primary monitor. Check the check box to enable this function, then, the driver will generate the mouse event for the primary monitor even through the touchscreen was configured as other monitor mapping and multiple monitor function enabled.

### **Operation Mode**

**TouchKit** driver support split display mode for those applications which do not map the touchscreen to the full screen of the monitor.

#### **Full screen**

The touchscreen will be mapped to the full screen of the specified monitor.

#### **Right screen**

The touchscreen will be mapped to the right half screen of the specified monitor.

**Left screen**

The touchscreen will be mapped to the left half screen of the specified monitor.

**Upper screen**

The touchscreen will be mapped to the upper half screen of the specified monitor.

**Lower screen**

The touchscreen will be mapped to the lower half screen of the specified monitor.

**Other operation mode****Quarter 1**

The touchscreen will be mapped to the first quarter area of the specified monitor display.

**Quarter 2**

The touchscreen will be mapped to the 2nd quarter area of the specified monitor display.

**Quarter 3**

The touchscreen will be mapped to the 3rd quarter area of the specified monitor display.

**Quarter 4**

The touchscreen will be mapped to the 4th quarter area of the specified monitor display.

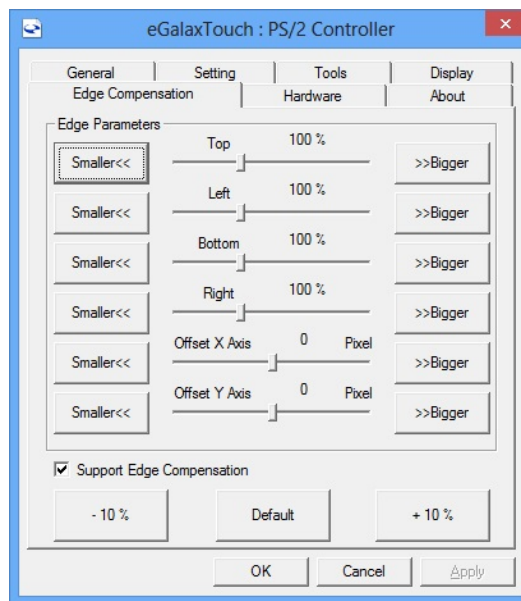
**Customized**

If the touchscreen needs to be mapped the area other than the above area, user can define the mapping area for application. With this mode, the driver does not correct the mapping area when the display resolution changed. It needs to do configuration setting again whenever the display resolution changed.

## 3.6. Edge Compensation

Edge Compensation property page contains functions of **Edge**

## Compensation for Top, Bottom, Left, Right, X Axis and Y Axis.



In some cases, if it is difficult to touch items at the edges of the touch panel, you can set adjustment to reach the edges of the screen image.

### Top

If you set the Edge to "Smaller", **TouchKit** will reduce the horizontal position of the top edge. If you set the Edge to "Larger", **TouchKit** will extend the horizontal position of the top edge.

### Bottom

If you set the Edge to "Smaller", **TouchKit** will reduce the horizontal position of the bottom edge. If you set the Edge to "Larger", **TouchKit** will extend the horizontal position of the bottom edge.

### Left

If you set the Edge to "Smaller", **TouchKit** will reduce the vertical position of the right edge. If you set the Edge to "Larger", **TouchKit** will extend the vertical position of the left edge.

## Right

If you set the Edge to "Smaller", **TouchKit** will reduce the vertical position of the right edge. If you set the Edge to "Larger", **TouchKit** will extend the vertical position of the right edge.

In some cases, cursor will be behind the finger when you touch the panel. If you can not see the cursor when you touch down the panel, you can set **X Axis** or **Y Axis** to move the cursor.

### Offset X Axis

If you set the Offset X Axis to Smaller, cursor will be moved a pixel of X Axis to left.

If you set the Offset X Axis to Larger, cursor will be moved a pixel of X Axis to right.

### Offset Y Axis

If you set the Offset Y Axis to Smaller, cursor will be moved a pixel of Y Axis to top.

If you set the Offset Y Axis to Larger, cursor will be moved a pixel of X Axis to bottom.

## Edge Compensation Switch

You can check **Support Edge Compensation** check box to enable/disable this function from left corner.

### Edge Compensation Button

Click **+10%** or **-10%** button to adjust the smaller or larger of edge. If you click **+10%** button, the top, bottom, left and right edges will extend 10% of orientation to touch screen, and cursor will be moved 10 pixel of X and Y Axis to right and top.

If you click **-10%** button, the top, bottom , left and right edges will contract 10% of orientation to touch screen, and cursor will be

moved 10 pixel of X and Y Axis to left and bottom.

Click **Default** button to resume to the default value.



## I/O Definition

Please refer the detailed technical information about all I/O ports as followings.

### 4.1. Power Connector



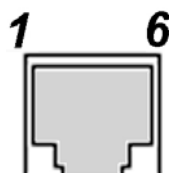
PIN	Description	PIN	Description
1	+19V	3	GROUND
2	+19V	4	GROUND

### 4.2. Serial Port



COM Port 1/2/3			
PIN	Description	PIN	Description
1	DCD	6	DSR
2	RXD	7	RTS
3	TXD	8	CTS
4	DTR	9	RI / 5V /12V
5	GND	10	NC

### 4.3. Cash Drawer



#### Connector

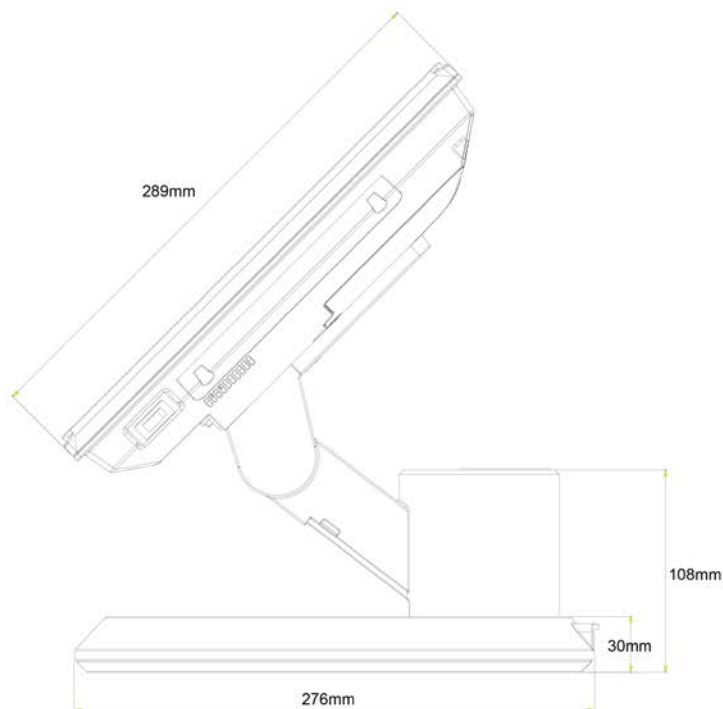
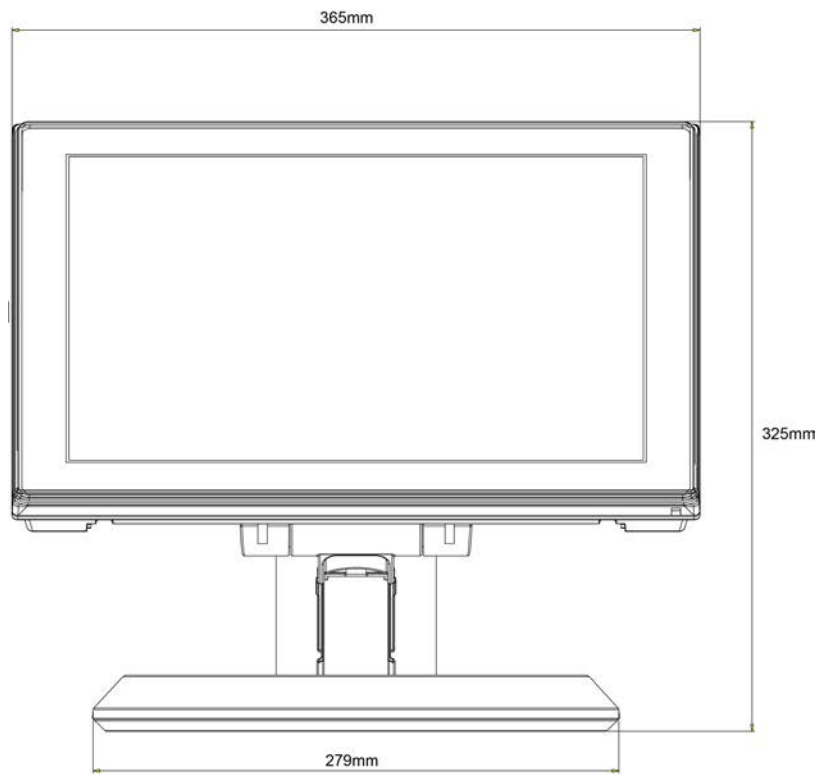
PIN	Description	PIN	Description
1	GND	4	VCC
2	D_OUT_0	5	D_OUT1
3	D_IN	6	GND

## Cash Drawer Control

Status	Address	Value
Open	280H	Bit 4 = 0
Close	280H	Bit 4 = 1
Read	281H	Bit 0 = 0/1
Status		

# 5.

## 5. Dimension



## 6. Specification

Main Board	
CPU	Intel® Core™ i7-3517UE Processor (4M Cache, up to 2.80 GHz) Intel® Core™ i3-3217UE Processor (3M Cache, 1.60 GHz) Intel® Celeron™ Processor 1047UE (2M Cache, 1.40 GHz)
Chipset	Intel® HM76
System Memory	1 x SODIMM DDR3 - 1333/1600, without ECC Supported, Max. 8GB
Thermal Solution	Fan-less
OS	Windows XP, Windows XPe, WES 2009, WEPOS, POSReady 2009, Windows 7, WES7, POSReady 7, Windows 8, Windows Embedded 8 Pro/Standard/Industry, Linux kernel 3.X, DOS 6.22
Display	
TFT LCD Size	15"
Brightness	250 nits
Resolution	1024 x 768
Touch Screen	5-wire Resistive Type
Tilt Angle	0°~90°
Storage Device	
HDD	1 x 2.5" HDD Removable Drive Bay
DOM	1 x IDE, 2 x SATA
I/O Ports	
Serial	6 x RS-232 Pin9 ,w/ RI/5V/12V Selectable by BIOS 1 x COM1: DB9 , RS-232/422/485, 1 x COM2 : RJ50, RS-232 connector, 1 x COM5 with PS/2, 3 x COM3, 4, 6 : Internal Pin header (9 pin)
USB	2 x USB 2.0, 2 x USB 3.0
LAN	2 x Gigabit Ethernet by RJ-45 , Support Wake on LAN
Cash Drawer	1 x RJ12 (24VDC)
Audio	2x 8Ω 2W speaker
Expansion	1 x Mini PCIe
Others	
Wall mount	Support VESA Mount
Power Input	External adapter, 19VDC input
Color	Black/Silver (Two Tone)
Material	Plastic / Aluminum
EMC& Safety Compliance	FCC / CE
Weight	6.43 Kg
Dimension	365mm x 257mm x 336mm (W x D x H)
Operation Temperature	0°C ~ 35°C

<b>Storage Temperature</b>	-20° ~ 60°C
<b>Storage Humidity</b>	20 – 80% RH, non-condensing

\* Please contact supplier for detail information.